

This subclass is indented under subclass 244.1.

A process in which the earth is cracked by a fluid in order to create a fissure or fissures therein and in which (1) there is a specifically claimed feature for limiting travel of the fluid in the pores of the formation or (2) the fluid is a cementing, plugging or consolidating material.

- (1) Note. See (2) Note of subclass 282 for the meaning of the feature to limit travel of the fluid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

281, for processes relating to separate steps of (1) cementing, plugging or consolidating and (2) fracturing, in which the cementing, plugging or consolidating material may limit fluid loss of the fracturing fluid.

284

Fluid flow causes pellet to block opening in wall of conduit:

This subclass is indented under subclass 244.1.

A process in which there is an opening in the side wall of a pipe or well conduit and a pellet entrained in a fluid is caused to be moved by said fluid to impede flow of said fluid through the opening, a single pellet being used to impede flow through an opening.

- (1) Note. Plural pellets may be used to block plural openings but only one pellet is used for each of the openings blocked by the pellets. If a plurality of pellets or particles are used to block an opening the operation is considered to be a cementing or plugging process for subclasses 285+.
- (2) Note. The pellet must be free to travel a substantial distance due to fluid flow. A pellet confined in a cage adjacent an opening which pellet is moved by fluid flow to block the opening is considered a check valve. A process using such a pellet would be classified on other features.

285

Cementing, plugging or consolidating:

This subclass is indented under subclass 244.1.

A process comprising (1) causing fluent material to flow into position in prepositioned well conduit substantially to stop flow of a fluid by forming a blocking means in situ, said material being plastic or hardenable after being so placed, (2) placing small particles in a prepositioned well conduit to cause them to form a mass of particles in situ substantially to stop flow of a fluid, (3) placing or forming solid or plastic material in the pores of or spaces in a formation to block them and thereby impede flow of an earth fluid, (4) treating a formation with an introduced material so as to prevent it from shifting or breaking down, i.e., consolidating the formation, or (5) treating a formation (e.g., by heating, etc.) to cause the formation to coalesce into an impermeable or consolidated mass.

- (1) Note. Patents with claims in which there is only a broad mention by name only of a cementing, plugging or consolidating process with no detail of the steps of the process or the material used, are classified on the basis of the other steps recited. In the case, however, of a drilling process in which drilling is interrupted for cementing,

classification may be in subclasses 285+ even if the cementing step is only nominally or inferentially claimed. See section III of the class definition. However, if any other steps are set forth in a claim affording a basis for classification in a subclass below subclasses 285+ then the patent is classified in the appropriate subclass, the nominal cementing step being disregarded.

- (2) Note. Processes which include forming a coating or lining on the bore hole wall or plugging the pores of the formation by drilling fluid while the earth is being cut or disintegrated to form the bore, are not classified as cementing, plugging or consolidating processes for this class. See section III of the class definition of Class 166 for the line with Class 175, Boring or Penetrating the Earth, and the search notes below.
- (3) Note. Merely forming a plug or the like by lowering a quantity of plastic material in a container and permitting it to harden in the container is not included. See subclass 315 for such processes.
- (4) Note. Under this definition material deposited in the openings of a formation may block one fluid and not another, or may form a permeable mass.
- (5) Note. Material deposited in the formation to form a film or thin coating on the formation material, or to form a foam, is not considered to come within this definition. See subclasses 305+ and the subclasses there noted for processes for so treating the formation.
- (6) Note. Material deposited in a fracture to form discrete props for the fracture is not considered to come within this definition. See subclass 280 for processes involving a specific propping feature and see (3) Note in said subclass for the distinction between propping and cementing or plugging.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 244.1, for a miscellaneous process involving forming a film or coating on a member.
- 276, for a process for providing a porous cementitious filter in a bore hole.
- 279, for a process for placing material in the pores of a formation to treat resident fluid flowing into the well.
- 280, for a process including a specific feature relating to propping a fracture.
- 281, for a process involving separate steps of (1) cementing, plugging or consolidating and (2) fracturing or attacking the formation.
- 283, for a process for fracturing a formation by forcing cement or plugging material into the formation.
- 284, for a process for causing a pellet to block an opening in the wall of a well conduit by flowing a fluid carrying said pellet, a single pellet being large enough to block an opening.